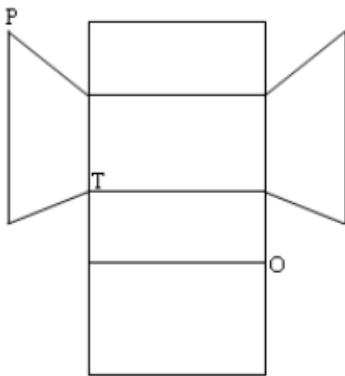
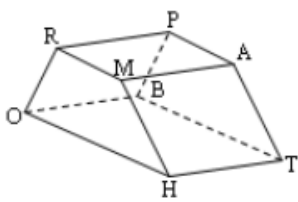


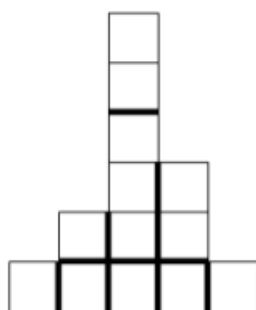
1. For the following polyhedron, label the remaining vertices of its net.



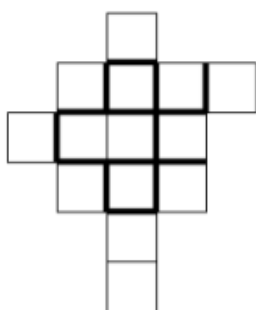
Note: The net is not drawn to scale

2. Given are the front view, top view, left view, and right view of a stack of cubes. Draw the 2-dimensional view from the back.

Front view



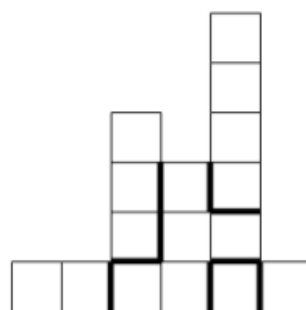
Top view



Left view



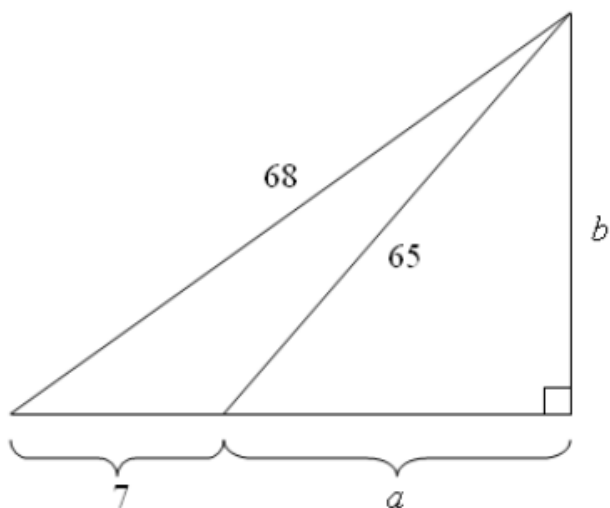
Right view



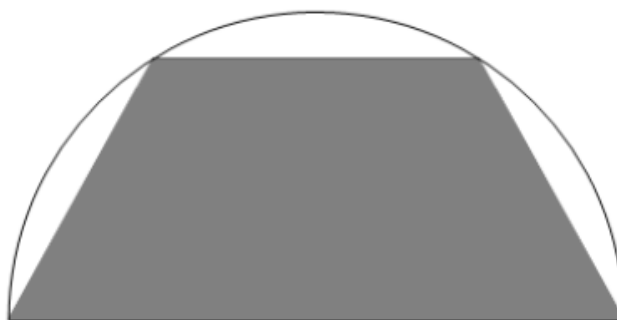
Back view



4. Find  $a$  and  $b$  in the following figure.

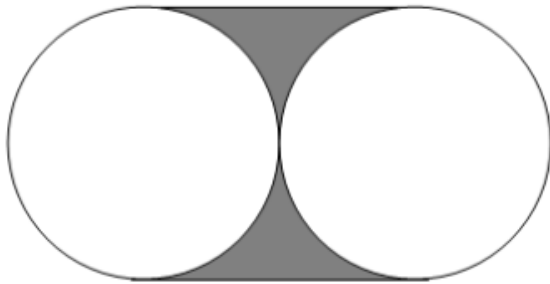


5. An isosceles trapezoid is inscribed in a semi-circle as shown below. The 3 nonshaded regions are  $\cong$ .  
If the radius of the semicircle is 1, find the EXACT area of the trapezoid.



6. Strips of a uniform width  $w$  are cut off the length and width of a rectangle that measures 10" by 12". How wide must the strips be to reduce the rectangle to one having an area of 80 square inches?

7. The 2  $\cong$  circles are tangent to one another in the figure below. If the combined circumference of the 2 circles is 138.2 feet find the area of the shaded region.



8. Point  $C$  is the center of the circle below. Point  $F$  is on the circle such that  $BCDF$  is a rectangle. If  $FD = 3$ , and  $DC = 4$ , find the area of the shaded region.

